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of ethimizole is replaced by a charged imidazolium ring. Such charged compounds are unable to penetrate through the blood-brain barrier, and therefore cannot affect the central nervous system.

5 The specification of RU1075668 disclosed the synthesis of three compounds within the formula, namely the 1,3-dimethyl,1-methyl-3-ethyl, and 1,3-diethyl compounds, and their ability to prevent development of neurogenic
10 gastric lesions in rats, to promote healing of such lesions, and to increase creatine phosphate levels in the gastric wall, when administered intra-peritoneally. It was suggested that, because of this stimulatory effect on energy metabolism, the compounds might be useful as tissue repair agents.

15 However, no guidance at all was provided as to how any other condition could be treated, how the compounds should be formulated, or by what routes they should be administered. Only intra-peritoneal administration was disclosed. In particular, there was no general disclosure
20 or suggestion that any of the compounds disclosed in this specification could have any activity in promoting healing of wounds, burns, skin ulcers or the like, in reducing scar formation, in reducing inflammation, in stimulating repair of bone, or in treating myocardial infarction.

25 We have now found that 1,3-dialkyl-4,5-bis(N-methylcarbamoyl)imidazolium salts promote tissue repair in a variety of settings, and in particular promote wound healing and reduce scar formation. We have also found that that a number of 1,3-dialkyl-4,5-bis(N-
30 methylcarbamoyl)imidazolium salts possess anti-inflammatory and wound healing properties, and that the compounds are active both orally and topically. These compounds demonstrate an anti-inflammatory effect in experimental models of inflammation, have no toxic effects in a variety
35 of assays, and are readily synthesised using simple reaction schemes.

Without wishing to be limited by any proposed

physician or veterinarian, and will depend on the nature and state of the condition to be treated, the age and general state of health of the subject to be treated, the route of administration, and any previous treatment which
5 may have been administered.

The carrier or diluent, and other excipients, will depend on the route of administration, and again the person skilled in the art will readily be able to determine the most suitable formulation for each particular case.

10 It will be clearly understood that the method of the invention may be used in conjunction with one or more other treatments, such as other therapeutic agents or the use of hyperbaric oxygen or subatmospheric pressure.

In a fourth aspect the invention provides a
15 method of synthesis of a compound of formula I, comprising the step of subjecting an 1-alkyl-4,5-bis(optionally N-substituted carbamoyl)imidazole to alkylation (quaternization) with an alkyl benzenesulfonate to produce the corresponding imidazolium benzenesulfonate, and
20 optionally replacing the benzenesulfonate anion by ion exchange, in which the imidazole moiety is as defined in formula I.

In the claims which follow and in the preceding description of the invention, except where the context
25 requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in
30 various embodiments of the invention.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 illustrates the healing of skin full-thickness
35 wounds at 15 days.

A: control group, self-healing without treatment;

B: experimental group treated with compound (2) (10% cream);

40 C: control group treated with Spasatel balm;

D: experimental group treated with Solcoseryl

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- from the group consisting of traumatic wounds, surgical wounds, burns, dehisced surgical incisions, grafts, diabetic ulcers, varicose ulcers, decubitus ulcers (bedsores), trophic ulcers, tropical ulcers, steroid
- 5 ulcers, indolent ulcers, oral or pharyngeal ulcers, aphthous ulcers, and corneal ulcers; and cervical erosions.
16. A method according to any one of claims 1 to 14, in which the subject is suffering from a condition selected from the group consisting of gastric or duodenal ulcers,
- 10 and ulcerative colitis.
17. A method according to any one of claims 1 to 14, in which the subject is suffering from a condition selected from the group consisting of myocardial damage, liver damage and bone damage.
- 15 18. A method according to claim 17 of stimulating liver regeneration.
19. A method according to claim 15 of reducing or preventing scar formation.
20. A method according to claim 16 of treatment of
- 20 ulcerative colitis.
21. A method according to claim 15 of treatment of oral or pharyngeal ulceration.
22. A method according to claim 17 of treatment of hepatic cirrhosis or chronic active hepatitis.
- 25 23. A method according to claim 16 of treatment of gastric or duodenal ulcers.
24. A method according to claim 17 of treatment of myocardial infarction.
25. A method according to claim 17 of stimulating
- 30 bone repair.
26. A method according to any one of claims 1 to 25, in which the 1,3-dialkyl-4,5-bis (optionally N-substituted carbamoyl) imidazolium salt is selected from the group consisting of
- 35 1,3-dimethyl-4,5-bis(N-methylcarbamoyl)imidazolium benzenesulfonate,
1-methyl-3-ethyl-4,5-bis(N-methylcarbamoyl)imidazolium